

Title (en)  
WORKING MACHINE

Title (de)  
ARBEITSMASCHINE

Title (fr)  
ENGIN DE CHANTIER

Publication  
**EP 3604688 A1 20200205 (EN)**

Application  
**EP 18849172 A 20180824**

Priority  
• JP 2017161600 A 20170824  
• JP 2018031377 W 20180824

Abstract (en)  
Work efficiency is improved while necessary and sufficient monitoring on the surroundings of a working machine is performed. A working machine includes an undercarriage 132 on which an upperstructure 131 including a front working device is mounted in a swingable manner, and includes a surrounding monitoring device 200 that monitors surroundings. The surrounding monitoring device 200 has an information controller 161 that: sets a working region by use of terrain data and work states received from sensors detecting work states of the front working device of the working machine; calculates proximity for each of the obstacles around the working machine by use of the working regions and relative positions of each of obstacles and the working machine, the obstacles being detected by an obstacle sensor that detects obstacles around the working machine; and outputs a control instruction in accordance with the proximity.

IPC 8 full level  
**E02F 9/20** (2006.01); **E02F 9/24** (2006.01)

CPC (source: EP KR US)  
**B60Q 5/006** (2013.01 - US); **B60Q 9/008** (2013.01 - US); **E02F 3/32** (2013.01 - US); **E02F 3/435** (2013.01 - US); **E02F 9/123** (2013.01 - US); **E02F 9/2025** (2013.01 - KR); **E02F 9/2033** (2013.01 - EP); **E02F 9/2203** (2013.01 - EP); **E02F 9/2253** (2013.01 - EP); **E02F 9/24** (2013.01 - EP KR US); **E02F 9/26** (2013.01 - KR US); **E02F 9/262** (2013.01 - EP US); **E02F 9/265** (2013.01 - US); **E02F 9/268** (2013.01 - EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3604688 A1 20200205**; **EP 3604688 A4 20210331**; CN 110462139 A 20191115; CN 110462139 B 20220527; JP 2019039206 A 20190314; JP 6960802 B2 20211105; KR 102242734 B1 20210422; KR 20190117626 A 20191016; US 11142891 B2 20211012; US 2020048871 A1 20200213; WO 2019039593 A1 20190228

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